I-81 VIADUCT PROJECT – PHASE 1, CONTRACT 2

DESIGN-BUILD PROJECT

PIN 3501.91, Contract D900056

Request for Proposals

Addendum #9

March 3, 2023

Modification to the Request for Proposals

I-81 VIADUCT PROJECT – PHASE 1, CONTRACT 2

Design-Build Project

PIN 3501.91, Contract D900056

Note to Proposers

Differences between the deleted pages and the revised pages have been identified as follows:

- Brackets have been inserted on the left-hand margin of the pages to indicate where changes have been made to the documents; and
- Text additions have been shown in underlined red font and text deletions have been shown in crossed out red font.

General Instructions

Delete Page C-9 of the Instructions to Proposers, Appendix C, Technical Submittal, and substitute the attached revised Page C-9.

Delete Form SP of the Instructions to Proposers, Appendix E, Forms, and substitute the attached revised Form SP.

Delete Pages 172, 177, 178, and 179 of the DB Contract Documents, Part 3, Project Requirements, and substitute the attached revised Pages 172, 177, 178, and 179.

Delete Page 4-14 of the DB Contract Documents, Part 4, Appendix A, Utility Requirements, and substitute the attached revised Page 4-14.

Delete Drawings VBD-02 and NBD-02 of the DB Contract Documents, Part 6, RFP Plans – Directive Plans, and substitute the attached revised Drawings VBD-02 and NBD-02.

Delete Drawings SG-08 and SG-10 of the DB Contract Documents, Part 6, RFP Plans – Indicative Plans, and substitute the attached revised Drawings SG-08 and SG-10.

Delete the attached Specification for ITEM 643.99010004 – PRECAST CONCRETE NOISE BARRIER SYSTEM of the DB Contract Documents, Part 8, Special Specifications, and substitute the attached revised Specification for ITEM 643.99010004 – PRECAST CONCRETE NOISE BARRIER SYSTEM. Please note, there are no tracked changes included and the Specification has been replaced in its entirety.

No other provision of the solicitation is otherwise changed or modified.

Table C
Format of Volume 2

Proposal Component	Reference
Volume 2, Section 1 – Design-Build Organization and Process	
Volume 2, Section 1A – Key Personnel	
Key Personnel Form R	C2.1
Volume 2, Section 1B – Overall Design-Build Team Organization	
Design-Build Team Organization Chart (Narrative, Max 75 pages plus 11x17 org chart)	C2.2.1
Design-Build Team Communication Protocol (Narrative, Max 5 pages plus 11x17 communication graphic)	C2.2.2
Design-Build Quality Control Plan (max 250 pages plus org charts)	C2.2.3
Volume 2, Section 2 – Design Build Approach to the Project (Technical Solutions)	
Volume 2, Section 2A – Project Understanding	
Project Understanding (Narrative, max 6 pages, Form R1 – max 6 pages, Form R2 – max 6 pages)	C3.1
Volume 2, Section 2B – Design Solutions	
Design Approach (Narrative, max 15 pages)	C3.2.1
Copies of Department's approval letters for each ATC that is incorporated into the Proposer's Proposal along with each submitted ATC that was approved and used.	C3.2.1
Noise Abatement Justification Memo (maximum 2 pages)	C3.2.3
Volume 2, Section 2C – Construction Approach (Means and Methods)	
Overall Project Construction Sequence (maximum 6 pages)	C3.3.1
Work Zone Traffic Control (maximum 3 pages)	C3.3.2
Means & Methods/Sequence of Work at the CSX Bridges (max. 2 pages)	C3.3.3
Protection of Existing Facilities (maximum 1 pages)	C3.3.4
Utility Work (maximum 2 pages)	C3.3.5
Drainage Modifications (maximum 2 pages)	C3.3.6
Railroad Management Plan (maximum 2 pages)	C3.3.7
Volume 2, Attachment A – Design Drawings	
Project Limits	C3.2.2
General Configurations	C3.2.2
Construction Phasing	C3.2.2
Demolition Limits	C3.2.2
Renderings	C3.2.2
Work Zone Traffic Control	C3.3.2
Volume 2, Attachment B – Project Schedules	
Initial Baseline Progress Schedule (maximum 25 pages)	C4.1
Initial Baseline Progress Schedule Narrative (maximum 8 pages)	C4.1
Form SCD – Schedule of Contract Durations	C4.2

Note: Volume 2, Attachment A – Design Drawings, shall be submitted in a separate 11"x17" binder.

FORM SP
SCHEDULE OF PRICES

Proposer: _____

Item #	Item Name	**Price** (1)
800.06000115	Design Build – Construction Work – Bridge No. 14	
800.06000215	Design Build – Construction Work – Bridge No. 15	
800.06000315	Design Build – Construction Work – Bridge Nos. 16 & 17	
800.06000415	Design Build – Construction Work – Bridge No. 1	
800.06000515	Design Build – Construction Work – Bridge No. 7	
800.06000615	Design Build – Construction Work – Bridge No. 8	
800.06000715	Design Build – Construction Work – Bridge No. 9	
800.06000815	Design Build – Construction Work – Bridge No. 10	
800.06000915	Design Build – Construction Work – Bridge No. 11	
800.06001015	Design Build – Construction Work – Bridge Nos. 12 & 18	
800.06001115	Design Build – Construction Work – Bridge No. 13	
800.06001215	Design Build – Construction Work – Exit 3 to Northern Project Limit (not including Bridge Work), including Route 5 and Route 5/92 Intersection	
800.06001315	Design Build – Construction Work – Southern Interchange, including adjacent work to and from the Southern Interchange (not including Bridge Work)	
800.06001415	Design Build – Construction Work – Noise Barriers & Visual Barrier	
800.06001515	Design Build – Construction Work – Bridge Demolition and Removal	
800.06010115	Design Build – Construction Work – Steel Superstructure Repairs – Directive Repairs	
800.06020015	Design Build – Construction Work – Steel Superstructure Repairs – Unanticipated Repairs	$2,000,000
800.06060115	Design Build – Construction Work – Concrete Substructure Repairs – Directive Repairs	
800.06070015	Design Build – Construction Work – Concrete Substructure Repairs – Unanticipated Repairs	$2,000,000

800.06080115	Design Build – Construction Work – Concrete Retaining Wall Repair Work – Directive Repairs	
800.04001115	Design Build – Extra Work	$~~18~~20,000,000
	Subtotal A	
800.05000015	Design Build – Site Mobilization (Maximum 4% of Subtotal A)	
	Subtotal B (Sum of Subtotal A and Site Mobilization)	
800.14000115	Design Build – Local Hire Incentive	$3,105,000
800.15000115	Design Build – Training Requirements	$1,201,000
800.16000120	Steel/Iron Price Adjustment	$4,000,000
800.01000015	Design Build – Design Services	
800.02000015	Design Build – Construction Inspection Services	
800.03000015	Design Build – Quality Control Services	
	TOTAL PROPOSAL PRICE	

Notes:

A) Proposers shall complete Form SP using the excel spreadsheet located on the Department's Project web site.

B) Subtotal B will be the value used to *calculate* the 30% Prime/DB self work requirement less any Self Performance Specialty Items included in Part 5 – Special Provisions.

Instructions:

A) Enter Lump Sum Price for each Price Item in the white, non-shaded, cells.

- Shop drawings, which must be viewed and approved by R3 ITS/TMC before being used on the project.

18.8 DEVICE REQUIREMENTS

Equipment	Associated Item Number
100 ft Camera Pole with 5 Lowering Devices	683.04100502
IP Power Distribution Unit	683.96100305
5.8 GHz Point to Multipoint Ethernet Radio	683.10900010 and 683.10910010
Camera Assembly	683.10120008
MPEG-2/4 Video Encoder-Decoder	683.95010011
Ethernet Switch	683.95050010
Base-Mounted Equipment Cabinet Type 332	683.06010013
Variable Message Sign	683.93183104
Acoustic/Radar Vehicle Detector Assembly	683.91150010
Aluminum Microcomputer Cabinet Base	680.80325010
Electrical Disconnect/Generator Transfer Switch	680.94997008
Road Weather Information System Type 1	683.30240108
Ice Detention Systems: • Flashing Beacon Sign Assembly • Pedestrian Signal Pole—Bracket Mount	 680.8220 680.681802

Memorial Day Labor Day	Monday	6:00 AM Friday before to 6:00 AM Tuesday after
Thanksgiving Day	Thursday	6:00 AM Wednesday before to 6:00 AM Monday after

Exceptions can only be made under the following conditions:

- Emergency work.
- Work within long-term stationary lane/shoulder closures.
- Safety work that does not adversely impact traffic mobility and has been authorized by the Regional Traffic Engineer.

Note: The Department reserves the right to cancel any work operations, including lane closures and/or total road closures, that would create traffic delays by unforeseen events. The Design-Builder would be notified at least seven (7) calendar days prior to the proposed work.

19.3.4 Access to Commercial Properties and Driveways

Design-Builder shall maintain access to businesses for vehicles, pedestrians, and bicyclists. If access cannot be maintained, the Design-Builder shall notify the business and provide alternative access. If alternative access cannot be provided, the Design-Builder shall conduct work when the business is not operational and shall restore access during business hours. As committed to in the FEIS, the Design-Builder shall install temporary business signs to identify entrances and direct customers to business that would be affected by detours, if applicable.

19.3.5 Closure Restrictions

Closure Restrictions

A. Daily or Temporary Lane or Shoulder closures will not be permitted as shown below:

AM PEAK PERIOD					
ROUTE	**DIR**	**LIMIT (FROM)**	**LIMIT (TO)**	**LANE CLOSURE RESTRICTION FROM**	**LANE CLOSURE RESTRICTION TO**
I-81	~~SB~~NB	ROUTE ~~31 CICERO~~11 NEDROW	~~ADAMS ST ON RAMP~~ I-690	6:00AM	9:00AM
I-481	SB	I-81 N. SYRACUSE	RTE 5 & 92 EXIT	6:00AM	9:00AM
I-481	NB	ROUTES 5 & 92 EXIT	I-90	6:00AM	9:00AM
I-690	EB	I-90	I-481 DEWITT	6:00AM	9:00AM
I-690	WB	I-481 DEWITT	WEST ST SYRACUSE	6:00AM	9:00AM
RTE 481	SB	ROUTE 31	I-81 N. SYRACUSE	6:00AM	9:00AM
ROUTE 92	EB/WB	JUNCTION WITH NY5	WOODCHUCK HILL RD	6:00AM	10:00AM

PM PEAK PERIOD					
ROUTE	**DIR**	**LIMIT (FROM)**	**LIMIT (TO)**	**LANE CLOSURE RESTRICTION FROM**	**LANE CLOSURE RESTRICTION TO**
I-81	SB	I-690	ROUTE 11 NEDROW	3:00PM	6:00PM
I-481	NB	RTE 5 & 92 EXIT	I-81 N. SYRACUSE	3:00PM	6:00PM
I-481	SB	I-690	RTE 5 & 92 EXIT	3:00PM	6:00PM

I-690	EB	WEST ST SYRACUSE	I-481	3:00PM	6:00PM
I-690	WB	I-481 DEWITT	I-90	3:00PM	6:00PM
RTE 481	NB	I-81 N. SYRACUSE	ROUTE 31	3:00PM	6:00PM
FREEWAY PORTION OF RTE 5	WB	ROUTE 695	RM 3308 1291 (JUNCTION W/ 174 IN CAMILLUS)	3:00PM	6:00PM
ROUTE 5/92 (E. GENESEE ST)	EB	JAMESVILLE RD	JUNCTION WITH 92	7:00AM	10:00PM
ROUTE 5/92 (E. GENESEE ST)	WB	JAMESVILLE RD	JUNCTION WITH NY92	6:00AM	9:00PM
ROUTE 92	EB/WB	JUNCTION WITH NY5	WOODCHUCK HILL RD	3:00PM	7:00PM

B. During the following events there shall be no temporary lane or shoulder closures.

Designated Roadway Facilities		
Facility	**Limits**	**Holiday/Event**
I-81	Onondaga county	New York State Fair
I-481	All	
I-81 Southbound	Central Square to Southerly terminus of I-481	Before Major Events held in the JMA Wireless Dome (From two hours prior to the scheduled start until 30 minutes after the scheduled start of the event).
I-481	South of Route 298	
I-481	South of Route 298	After Major Events held in the JMA Wireless Dome (From 30 Minutes prior to the scheduled conclusion until 1 hour after the actual conclusion of the event.)
Route 5 Westbound	W. Genesee St. to Route 695	
Route 5 Eastbound	Route 174 to Route 695	
I-690 Eastbound	I-90(exit 1) to Hiawatha Blvd (exit 9)	
I-690 Westbound	I-81 to Route 695	
Route 5 Westbound	Route 695 to Route 174	
Route 5 Eastbound	Route 695 to W. Genesee St	
I-690 Eastbound	Route 695 to I-81	
I-690 Westbound	Exit 7, Solvay to I-90 (exit 1)	
I-81	City of Cortland to City of Syracuse	Lafayette Apple Festival
Route 5 Westbound	W. Genesee St. to Route 695	Before Amphitheater Events
Route 5 Eastbound	Route 174 to Route 695	
Route 5 Westbound	Route 695 to Route 174	After Amphitheater Events
Route 5 Eastbound	Route 695 to W. Genesee St	

HOLIDAY OR SPECIAL EVENT	**Falls on**		**Temporary lane closures are NOT allowed from**
	Days	**Date (mm/dd/yyyy)**	

New York State Fair	All	08/XX/202X thru 09/XX/202X	Beginning 6:00 AM Friday and ends 6:00 AM Tuesday
Lafayette Apple Festival	Saturday Sunday	10/TBA/202X thru 10/TBA/202X	Beginning 6:00 AM Saturday and ends 6:00 AM Monday
Before Amphitheater Events			From two hours prior to the scheduled start until 30 minutes after the scheduled start of the event
After Amphitheater Event			From 30 minutes prior to the scheduled conclusion until 1 hour after the actual conclusion of the event

Exceptions can only be made under the following conditions:

- Emergency work.
- Work within long-term stationary lane closures.
- Safety work that does not adversely impact traffic mobility and has been authorized by the Regional Traffic Engineer.

C. In addition to the other restrictions described in this note, from Memorial Day weekend through Columbus Day weekend, at least two travel lanes shall remain open for through traffic on Interstate 81 as follows:

a. Fridays from 12:00PM (noon) to 8:00 PM in the northbound direction
b. Saturdays from 12:00 PM (noon) to 8:00 PM in both directions
c. Sundays from 12:00 PM (noon) to 8:00 PM in the southbound direction
d. Fridays from 12:00 PM (noon) to 8:00 PM in the southbound direction in Onondaga County from I-481 (Syracuse) to Route 11 (Nedrow)

19.3.6 Minimum Lane Widths during Construction

The Design-Builder shall maintain a minimum travel lane width of **11** feet during construction on all interstates or freeways. On any local cross road, 10 feet shall be maintained.

19.3.7 Portable Variable Message Signs

The Design-Builder shall provide, as a minimum, **8** Portable Variable Message Signs, but more should the Design-Builder's design dictate, for the duration of this Contract. The Portable Variable Message Signs shall be deployed as necessary for the various WZTC schemes developed in coordination with, and with concurrence/acceptance from, the Department's Project Manager. The portable variable message signs provided shall meet the requirements of NYSDOT Item No. 619.110512 (Portable Variable Message Sign (PVMS) STANDARD SIZE - FULL MATRIX (LED) NO OPTIONAL EQUIPMENT SPECIFIED, CELLULAR COMMUNICATIONS).

PVMS shall be placed 7 days prior to any temporary signal placement is to begin and will remain in place until all work in that phase is completed.

PVMS shall be placed when there is a change to regular traffic patterns and to advise of this upcoming change in advance.

The development of messages for the Variable Message Sign(s) shall be the responsibility of the Department's CQAE and operations staff at the NYSDOT's Transportation Management Center.

The Design-Builder shall contact the Department's CQAE at least two weeks prior to placement of any Variable Message Sign regarding their location and receive concurrence of the location.

19.3.8 Temporary and Interim Pavement Markings

The Design-Builder shall provide temporary and interim pavement markings during all construction phases conforming to the requirements of the NYSDOT Standard Specifications. The Design-Builder is responsible for the maintenance of all temporary or interim markings throughout the length of the contract and they shall remain visible and in good condition. Interim markings that are required between November 1-April 15 shall be epoxy.

Water facilities in conflict located at NYS Route 5 and 92 Intersection (Lyndon Corners):

- Design-Builder will relocate a fire hydrant located on the south side of Highbridge Road (NYS Route 92) at approximately Station S6C 112+75 RT

A-4.4.3 City of Syracuse

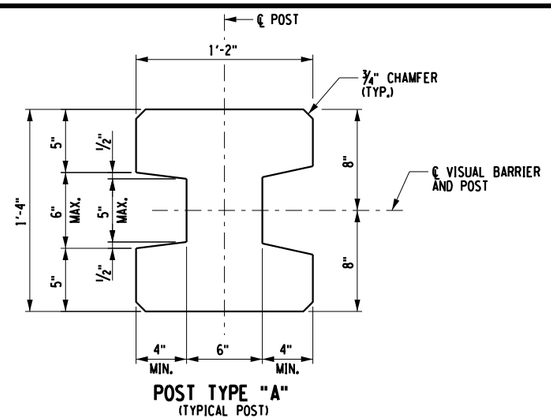
Water facilities in conflict located at I-81 / I-481 Southern Interchange:

- Design-Builder will replace the existing 8" water main located on East Glen Ave. Bridge over I-81, at approximately Station R3A 118+50, with a new 12" main along relocated E. Glen Avenue. The existing 8" line shall remain in service at all times, until the new 12" main is in service. The Design-Builder will provide and install ~~a~~ two new meter pits on the west side of the new bridge over future BL 81 and a new 12" water main along relocated E. Glen Avenue, connecting to the relocated 12" water main on E. Brighton Avenue. The new meter pits shall be located within the highway boundary or permanent easement area, location to be determined by City of Syracuse Water Department. The work will include reconnecting the existing private water mains on Loretto property to the new meter pits. The work shall also include installing 2 new fire hydrants, one on either side of the new bridge over BL 81.

- The water meter pits shall be designed:
  - To be watertight and located to allow natural light into the pit during testing/maintenance.
  - With adequate horizontal and vertical clearances to allow access to the device.
  - With floors pitched to drain.
  - With surface grading to divert runoff away from the pit
  - To be Hot Box Aluminum Drop Over Enclosures. Model Number AEZ1SH

  Refer to Part 5, SP-18 for Drop Over Enclosure and Backflow Prevention details.

- Once the new 12" main feeding Loretto is operational, the existing 8" main on existing E. Glen Avenue will be cut just east of the existing bridge, and a new fire hydrant will be installed. There is an existing service tee in this area that must remain in service.
- Design-Builder will relocate a 12" water main located on East Brighton Ave Bridge. The existing water main shall remain in service at all times, except for a maximum 4-hour window (subject to City Water Department approval) to connect the new main to the existing main. At a minimum, the existing main will be replaced between approximately



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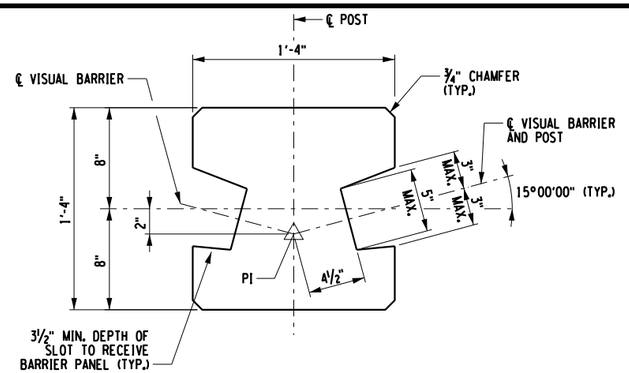

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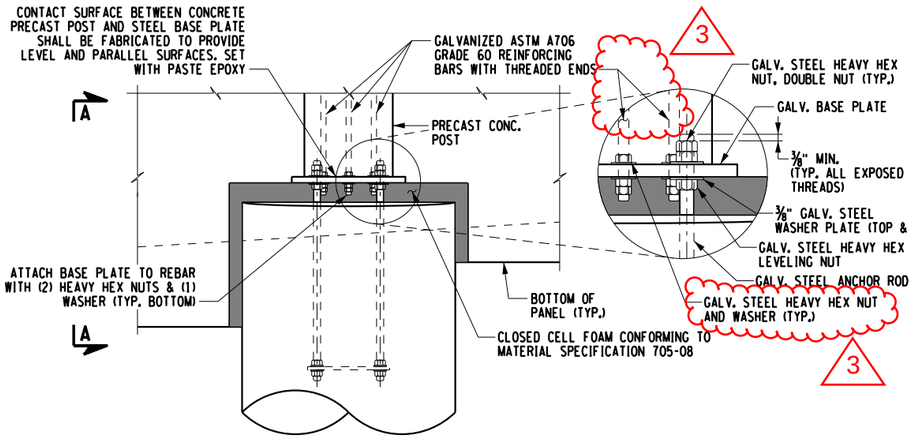

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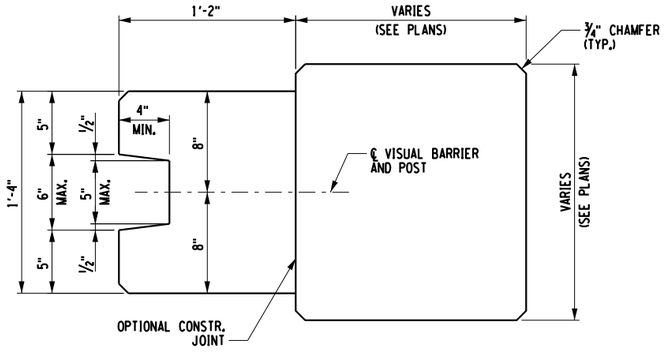

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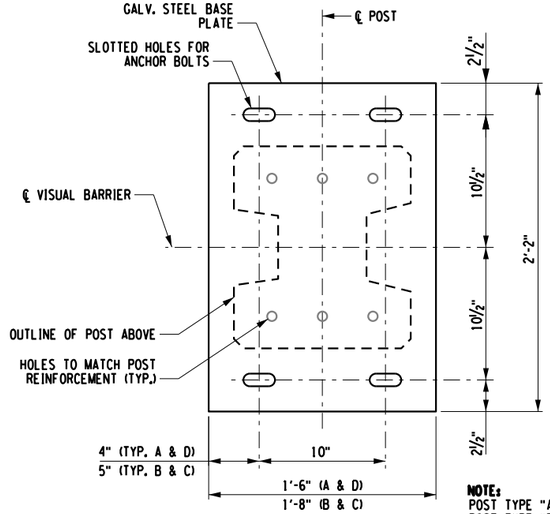

PLAN

NOTE:
POST TYPE "A" SHOWN, POST TYPE "B" AND "C" SIMILAR

POST BASE PLATE DETAILS
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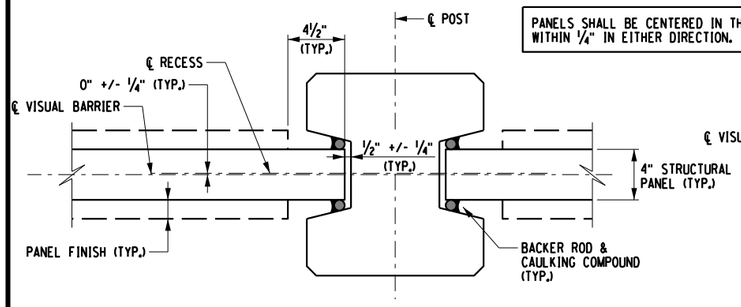

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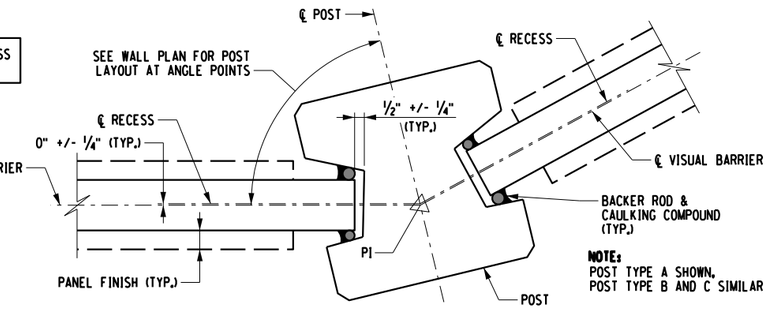


NOTE:
POST TYPE A SHOWN, POST TYPE B AND C SIMILAR

WITH ANGLE CHANGE

POST TO PANEL CONNECTION DETAILS
SCALE: 1" = 1'-0"

NOTES:

1. CAULKING COMPOUND SHALL MEET THE REQUIREMENTS OF MATERIAL SPECIFICATIONS 705-06 AND MUST BE APPROVED BY THE ENGINEER, COLOR TO MATCH CONCRETE FINISH. BACKER ROD SHALL BE CLOSED CELL POLYETHYLENE CONFORMING TO ASTM D5249, TYPE 1.
2. DESIGN BUILDER MAY MODIFY POST, PANEL AND BASE PLATE DIMENSIONS IF NECESSARY, TO SUIT ALIGNMENT ANGLES AND DESIGN LOADS. ANY MODIFICATIONS SHALL CONFORM TO THE FOLLOWING:
   A. MINIMUM DISTANCE FROM EDGE OF BASE PLATE TO EDGE OF SHAFT FOUNDATION CONCRETE SHALL BE 3".
   B. MINIMUM DISTANCE FROM CENTERLINE OF ANCHOR BOLT TO EDGE OF SHAFT FOUNDATION CONCRETE SHALL BE 8"
   C. ANCHOR BOLTS SHALL BE LOCATED INSIDE OF THE SHAFT REINFORCEMENT CAGE.
3. ALL THREADED REINFORCEMENT, ANCHOR BOLTS, NUTS, WASHERS, AND BASE PLATES SHALL BE TYPE 1 HOT-DIP GALVANIZED IN ACCORDANCE WITH MATERIAL SPECIFICATION 719-01.
4. THREADS ON REINFORCING BARS SHALL CONFORM TO THE REQUIREMENTS OF ANSI B1.1.
5. POST TYPE D SHALL BE USED AT THE BEGIN AND END OF ALL VISUAL BARRIERS.
6. FOR SECTION A-A REFER TO DWG. VBD-03.

AFFIX SEAL: ON:	ALTERED BY: ON:

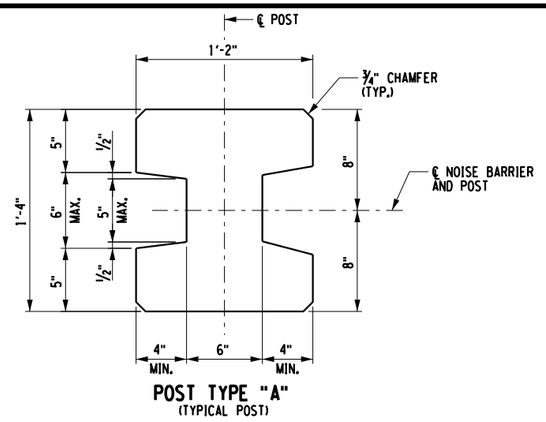
3 REVISED DIMENSIONS, NOTES, DETAIL, AND SHEET TITLE

AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	I-81 VIADUCT PROJECT COUNTY: ONONDAGA COUNTY, NY REGION: 3	PIN 3501.91	BRIDGES	CULVERTS	ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED PHASE 1, CONTRACT 2 DIRECTIVE PLANS VISUAL BARRIER DETAILS (2 OF 3)	CONTRACT NUMBER D900056 DRAWING NO. VBD-02 SHEET NO.

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

PROJECT MANAGER H. UNGAR
CHECK
DRAFTING
DESIGN
CHECK
JOB MANAGER
DESIGN SUPERVISOR

FILE NAME = c:#pw_working#newyork#parsons_epw29323#dms84112#3501911_cph_tad_03.dgn
DATE/TIME = 3/27/2023
USER = ScottSc



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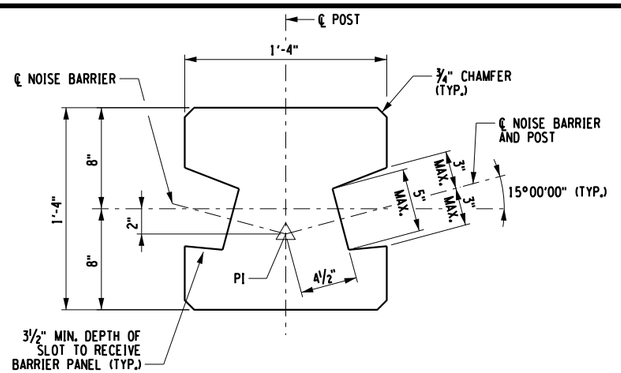

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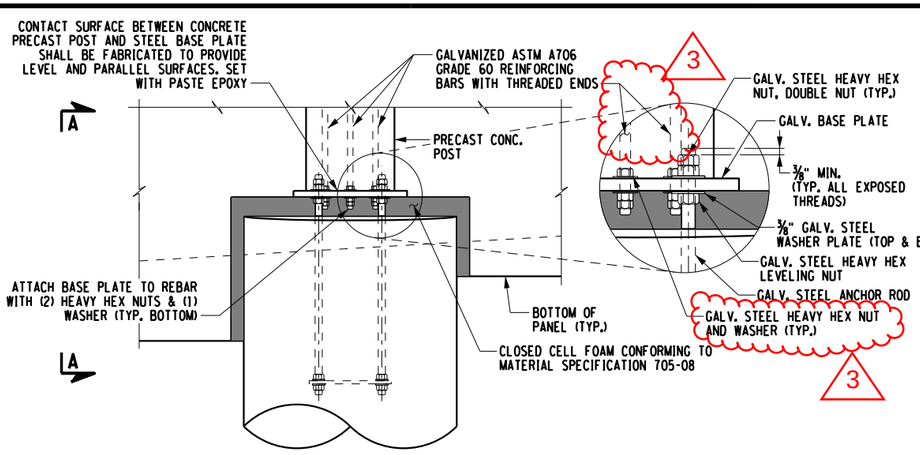

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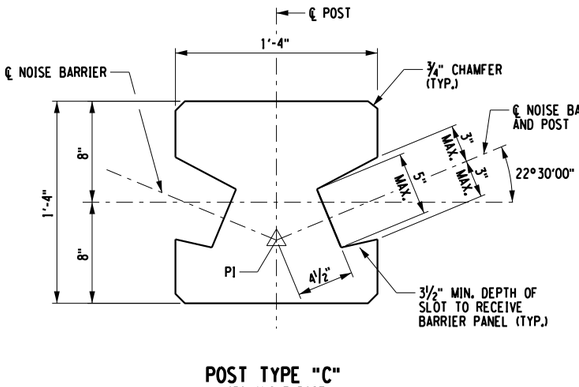

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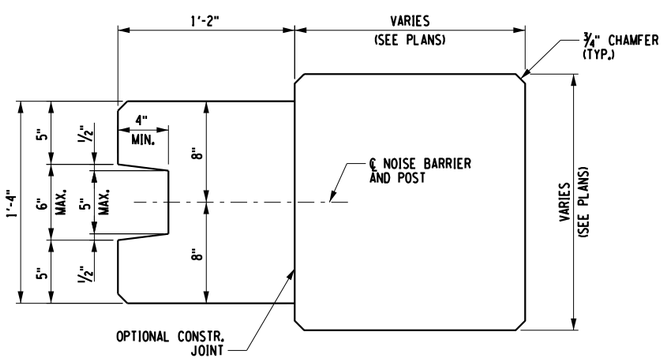

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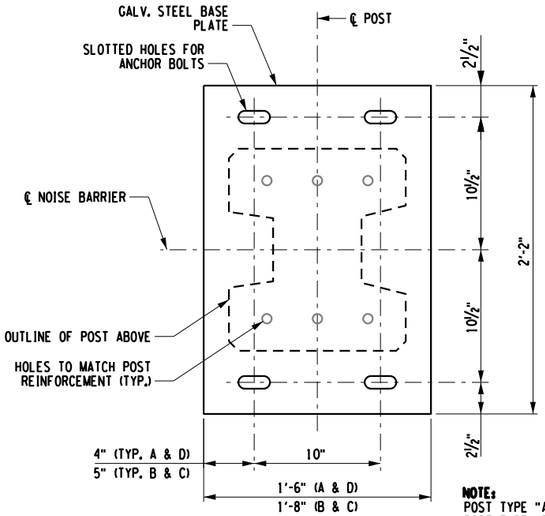

PLAN

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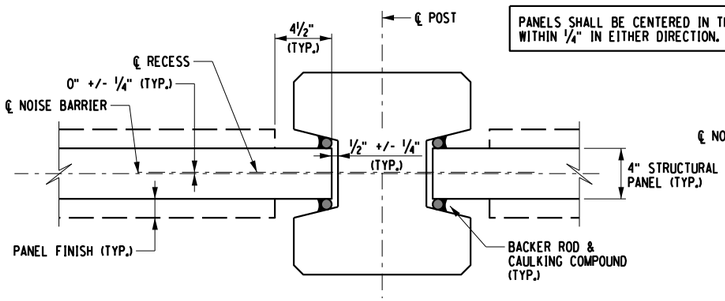
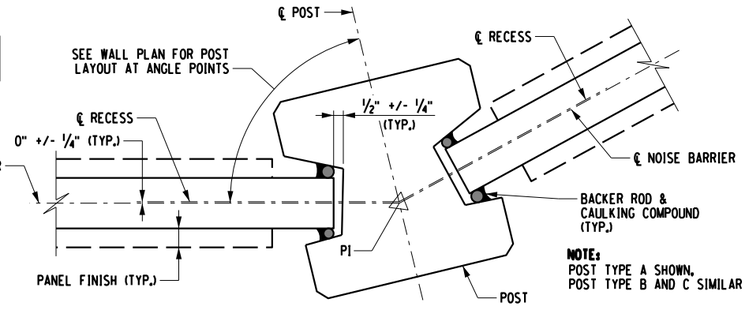
POST BASE PLATE DETAILS
SCALE: 1" = 1'-0"



WITHOUT ANGLE CHANGE



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POST TO PANEL CONNECTION DETAILS
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2. DESIGN BUILDER MAY MODIFY POST, PANEL AND BASE PLATE DIMENSIONS IF NECESSARY, TO SUIT ALIGNMENT ANGLES AND DESIGN LOADS. ANY MODIFICATIONS SHALL CONFORM TO THE FOLLOWING:
   A. MINIMUM DISTANCE FROM EDGE OF BASE PLATE TO EDGE OF SHAFT FOUNDATION CONCRETE SHALL BE 3".
   B. MINIMUM DISTANCE FROM CENTERLINE OF ANCHOR BOLT TO EDGE OF SHAFT FOUNDATION CONCRETE SHALL BE 8"
   C. ANCHOR BOLTS SHALL BE LOCATED INSIDE OF THE SHAFT REINFORCEMENT CAGE.
3. ALL THREADED REINFORCEMENT, ANCHOR BOLTS, NUTS, WASHERS, AND BASE PLATES SHALL BE TYPE 1 HOT-DIP GALVANIZED IN ACCORDANCE WITH MATERIAL SPECIFICATION 719-01.
4. THREADS ON REINFORCING BARS SHALL CONFORM TO THE REQUIREMENTS OF ANSI B1.1.
5. POST TYPE D SHALL BE USED AT THE BEGIN AND END OF ALL NOISE BARRIERS.
6. FOR SECTION A-A REFER TO DWG. NBD-03.

3 REVISED DIMENSIONS, NOTES, DETAIL, AND SHEET TITLE

AFFIX SEAL: ON:	ALTERED BY: ON:

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

I-81 VIADUCT PROJECT

COUNTY: ONONDAGA COUNTY, NY REGION: 3

PIN 3501.91 | BRIDGES | CULVERTS

ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED

PHASE 1, CONTRACT 2
DIRECTIVE PLANS
NOISE BARRIER DETAILS (2 OF 3)

CONTRACT NUMBER D900056

DRAWING NO. NBD-02

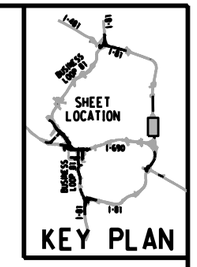
SHEET NO.

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

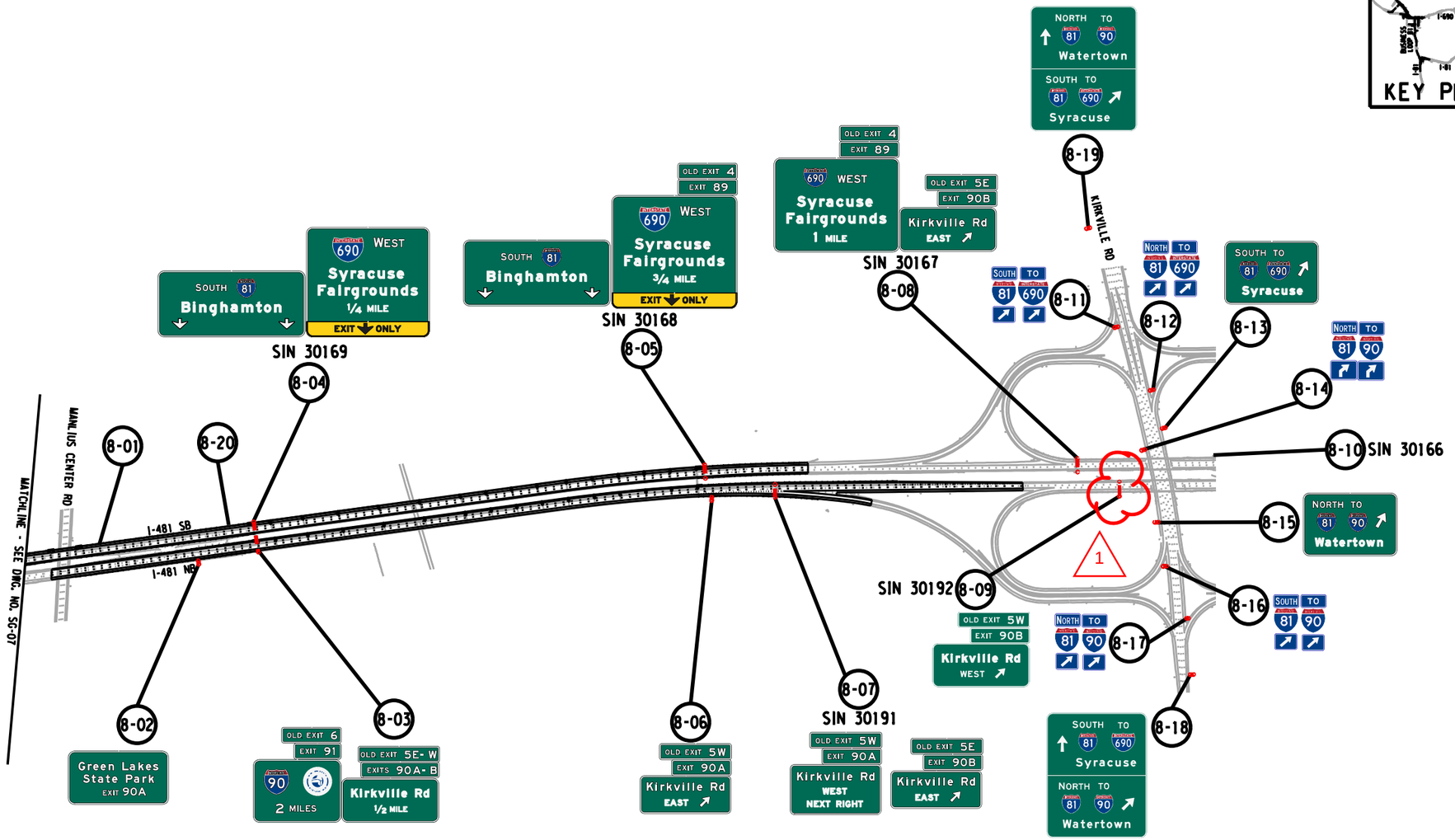
PROJECT MANAGER H. UNGAR
CHECK
DRAFTING
DESIGN
CHECK
JOB MANAGER
DESIGN SUPERVISOR

FILE NAME = c:\dpw_working\@newyork\@parsons_epw\293236\dms84112\8350191.cph.lad.06.dgn
DATE/TIME = 3/27/2023
USER = ScottSc

1 REVISED SIGN 8-09 TO AN OVERHEAD SIGN



GRID NORTH



NOTES:

1. REFER TO SIGNING TABLES FOR DESCRIPTION OF WORK.

2. ONCE NEW OR RELOCATED SIGNS ARE IN PLACE, ANY REMAINING EXISTING SIGN PANEL(S) AND EXISTING SIGN STRUCTURES ARE TO BE REMOVED BY THE DESIGN BUILDER.

3. MAINTAIN A SEPERATION OF 800 FEET MINIMUM BETWEEN ALL SIGN PANELS. IN THE EVENT A NEW SIGN PANEL ENCROCHES WITHIN 800 FEET OF EXISTING SIGN PANEL, THE DESIGN-BUILDER SHALL RELOCATE THE EXISTING SIGN TO ANOTHER LOCATION AS DIRECTED BY THE NYSDOT.

4. FOR ALL EXISTING SIGN STRUCTURES RECEIVING NEW SIGNS, DESIGN-BUILDER MUST EVALUATE STRUCTURAL CAPACITY OF EXISTING SIGN STRUCTURES AND VERIFY SIGN STRUCTURES WILL BE ABLE TO SUSTAIN LOADING UNDER PROPOSED CONDITIONS.

300 0 300 600
SCALE IN FEET

AFFIX SEAL: ON:	ALTERED BY: ON:

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

I-81 VIADUCT PROJECT

COUNTY: ONONDAGA COUNTY, NY REGION: 3

PIN 3501.91

BRIDGES

CULVERTS

ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED

PHASE 1, CONTRACT 2
INDICATIVE PLANS
SIGNING PLAN

CONTRACT NUMBER

DRAWING NO. SG-08

SHEET NO.

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

PROJECT MANAGER PE_PRINT
CHECK
DRAFTING
CHECK
DESIGN
JOB MANAGER
DESIGN SUPERVISOR

FILE NAME = DGN$SPEC01234567890123456789012345678901234
DATE/TIME = DGN$SYTIME01123456
USER = DGN$USERNAME

1 REVISED NOTE

SIGNING TABLE 1

SIGN DRAWING NO.	SIGN LOCATION	ROUTE	DIRECTION	NOTE
SG-06	6-01	I 81	SB	EXISTING SIGNS AND SIGN STRUCTURE ARE TO BE REMOVED.
	6-02	I 81	NB	PROVIDE AND INSTALL NEW SIGN PANEL ON A NEW CANTILEVER SIGN STRUCTURE. REMOVE AND DISPOSE OF EXISTING SIGN AND SIGN STRUCTURE.
	6-03	I 81	NB	PROVIDE AND INSTALL NEW SIGN PANELS ON NEW OVERHEAD SIGN STRUCTURE. REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	6-04	I 81	SB	EXISTING SIGNS AND SIGN STRUCTURE ARE TO BE REMOVED.
	6-05	I 81	SB	PROVIDE AND INSTALL NEW SIGN PANELS ON NEW OVERHEAD SIGN STRUCTURE. REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	6-06	I 81	SB	PROVIDE AND INSTALL NEW SIGNS ON A NEW GROUND MOUNTED SIGN STRUCTURE, REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	6-07	I 81	NB	PROVIDE AND INSTALL NEW SIGN PANELS ON NEW OVERHEAD SIGN STRUCTURE. REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	6-08	I 81	NB	PROVIDE AND INSTALL NEW ROUTE SIGNS ON A NEW GROUND MOUNTED SIGN STRUCTURE, REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	6-09	I 81	SB	PROVIDE AND INSTALL NEW SIGNS ON A NEW GROUND MOUNTED SIGN STRUCTURE, REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	6-10	HWY 5/92	EB	PROVIDE AND INSTALL NEW ROUTE SIGNS ON A NEW GROUND MOUNTED SIGN STRUCTURE, REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	6-11	HWY 5/92	EB	PROVIDE AND INSTALL NEW SIGN PANELS ON NEW OVERHEAD SIGN STRUCTURE. REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	6-12	HWY 5/92	EB	PROVIDE AND INSTALL NEW ROUTE SIGNS ON A NEW GROUND MOUNTED SIGN STRUCTURE, REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	6-13	HWY 5/92	WB	PROVIDE AND INSTALL NEW ROUTE SIGNS ON A NEW GROUND MOUNTED SIGN STRUCTURE, REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	6-14	HWY 5/92	EB	PROVIDE AND INSTALL NEW SIGN PANEL ON A NEW CANTILEVER SIGN STRUCTURE. REMOVE AND DISPOSE OF EXISTING SIGN AND SIGN STRUCTURE.
	6-15	HWY 5/92	WB	PROVIDE AND INSTALL NEW SIGN PANEL ON A NEW CANTILEVER SIGN STRUCTURE. REMOVE AND DISPOSE OF EXISTING SIGN AND SIGN STRUCTURE.
	6-16	HWY 5/92	EB	PROVIDE AND INSTALL NEW ROUTE SIGNS ON A NEW GROUND MOUNTED SIGN STRUCTURE, REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	6-17	HWY 5/92	WB	PROVIDE AND INSTALL NEW ROUTE SIGNS ON A NEW GROUND MOUNTED SIGN STRUCTURE, REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	6-18	HWY 5/92	WB	PROVIDE AND INSTALL NEW SIGN PANELS ON NEW OVERHEAD SIGN STRUCTURE. REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	6-19	HWY 5/92	WB	PROVIDE AND INSTALL NEW SIGN PANEL ON A NEW CANTILEVER SIGN STRUCTURE. REMOVE AND DISPOSE OF EXISTING SIGN AND SIGN STRUCTURE.
	6-20	HWY 5/92	WB	PROVIDE AND INSTALL NEW ROUTE SIGNS ON A NEW GROUND MOUNTED SIGN STRUCTURE, REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	6-21	HWY 5/92	EB	PROVIDE AND INSTALL NEW SIGN PANELS ON NEW OVERHEAD SIGN STRUCTURE. REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	6-22	HWY 5/92	EB	PROVIDE AND INSTALL NEW ROUTE SIGNS ON A NEW GROUND MOUNTED SIGN STRUCTURE, REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	6-23	HWY 5/92	WB	PROVIDE AND INSTALL NEW SIGNS ON A NEW GROUND MOUNTED SIGN STRUCTURE, REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	6-24	HWY 5/92	WB	PROVIDE AND INSTALL NEW SIGNS ON A NEW GROUND MOUNTED SIGN STRUCTURE, REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	6-25	HWY 5/92	EB	PROVIDE AND INSTALL NEW SIGN PANELS ON NEW OVERHEAD SIGN STRUCTURE. REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	6-26	ERIE BLVD	SB	PROVIDE AND INSTALL NEW SIGN PANELS ON NEW OVERHEAD SIGN STRUCTURE. REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
SG-07	7-01	I 81	SB	EXISTING SIGNS AND SIGN STRUCTURE ARE TO BE REMOVED.
	7-02	I 81	NB	PROVIDE AND INSTALL NEW SIGN PANEL ON A NEW CANTILEVER SIGN STRUCTURE. REMOVE AND DISPOSE OF EXISTING SIGN AND SIGN STRUCTURE.
	7-03	I 81	SB	PROVIDE AND INSTALL NEW SIGNS ON A NEW GROUND MOUNTED SIGN STRUCTURE, REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	7-04	I 81	SB	PROVIDE AND INSTALL NEW ROUTE SIGNS ON A NEW GROUND MOUNTED SIGN STRUCTURE, REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	7-05	I 81	NB	PROVIDE AND INSTALL NEW SIGN PANELS ON NEW OVERHEAD SIGN STRUCTURE. REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	7-06	I 81	NB	PROVIDE AND INSTALL NEW SIGN PANELS ON NEW OVERHEAD SIGN STRUCTURE. REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	7-07	I 81	SB	PROVIDE AND INSTALL NEW SIGNS ON A NEW GROUND MOUNTED SIGN STRUCTURE, REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	7-08	I 81	NB	PROVIDE AND INSTALL NEW SIGNS ON A NEW GROUND MOUNTED SIGN STRUCTURE, REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	7-09	I 81	SB	PROVIDE AND INSTALL NEW SIGN PANELS ON NEW OVERHEAD SIGN STRUCTURE. REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	7-10	I-690 RAMP	WB	PROVIDE AND INSTALL NEW SIGNS ON A NEW GROUND MOUNTED SIGN STRUCTURE, REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	7-11	I-690 RAMP	WB	PROVIDE AND INSTALL NEW ROUTE SIGNS ON A NEW GROUND MOUNTED SIGN STRUCTURE, REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	7-12	I-690 RAMP	WB	PROVIDE AND INSTALL NEW SIGN PANELS ON NEW OVERHEAD SIGN STRUCTURE. REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	7-13	I-690 RAMP	WB	PROVIDE AND INSTALL NEW SIGN PANELS ON NEW OVERHEAD SIGN STRUCTURE. REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	7-14	I-690 RAMP	EB	PROVIDE AND INSTALL NEW ROUTE SIGNS ON A NEW GROUND MOUNTED SIGN STRUCTURE, REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	7-15	I-690 RAMP	EB	EXISTING SIGNS AND SIGN STRUCTURE ARE TO BE REMOVED.
	7-16	I-690 RAMP	EB	PROVIDE AND INSTALL NEW SIGNS ON A NEW GROUND MOUNTED SIGN STRUCTURE, REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	7-17	I-690 RAMP	EB	EXISTING SIGNS AND SIGN STRUCTURE ARE TO BE REMOVED.
	7-18	I-690 RAMP	EB	PROVIDE AND INSTALL NEW SIGNS ON A NEW GROUND MOUNTED SIGN STRUCTURE, REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	7-19	I-690 RAMP	EB	PROVIDE AND INSTALL NEW SIGNS ON A NEW GROUND MOUNTED SIGN STRUCTURE, REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	7-20	I-690 RAMP	EB	PROVIDE AND INSTALL NEW SIGN PANELS ON NEW OVERHEAD SIGN STRUCTURE. REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
SG-08	8-01	I 81	SB	EXISTING SIGNS AND SIGN STRUCTURE ARE TO BE REMOVED.
	8-02	I 81	NB	PROVIDE AND INSTALL NEW SIGNS ON A NEW GROUND MOUNTED SIGN STRUCTURE, REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	8-03	I 81	NB	PROVIDE AND INSTALL NEW SIGN PANELS ON NEW OVERHEAD SIGN STRUCTURE. REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	8-04	I 81	SB	PROVIDE AND INSTALL NEW SIGN PANELS ON NEW OVERHEAD SIGN STRUCTURE. REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	8-05	I 81	SB	PROVIDE AND INSTALL NEW SIGN PANELS ON NEW OVERHEAD SIGN STRUCTURE. REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	8-06	I 81	NB	PROVIDE AND INSTALL NEW SIGNS ON A NEW GROUND MOUNTED SIGN STRUCTURE, REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	8-07	I 81	NB	PROVIDE AND INSTALL NEW SIGN PANELS ON NEW OVERHEAD SIGN STRUCTURE. REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	8-08	I 81	SB	PROVIDE AND INSTALL NEW SIGN PANELS ON NEW OVERHEAD SIGN STRUCTURE. REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	8-09	I 81	NB	PROVIDE AND INSTALL NEW SIGNS ON A NEW OVERHEAD SIGN STRUCTURE, REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE. 1
	8-10	I 81	SB	EXISTING SIGNS AND SIGN STRUCTURE ARE TO BE REMOVED.
	8-11	KIRKVILLE RD	EB	PROVIDE AND INSTALL NEW ROUTE SIGNS ON A NEW GROUND MOUNTED SIGN STRUCTURE, REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	8-12	KIRKVILLE RD	WB	PROVIDE AND INSTALL NEW ROUTE SIGNS ON A NEW GROUND MOUNTED SIGN STRUCTURE, REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	8-13	KIRKVILLE RD	WB	PROVIDE AND INSTALL NEW SIGN PANELS ON A NEW GROUND MOUNTED SIGN STRUCTURE, REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	8-14	KIRKVILLE RD	EB	PROVIDE AND INSTALL NEW ROUTE SIGNS ON A NEW GROUND MOUNTED SIGN STRUCTURE, REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	8-15	KIRKVILLE RD	EB	PROVIDE AND INSTALL NEW SIGN PANELS ON A NEW GROUND MOUNTED SIGN STRUCTURE, REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	8-16	KIRKVILLE RD	EB	PROVIDE AND INSTALL NEW ROUTE SIGNS ON A NEW GROUND MOUNTED SIGN STRUCTURE, REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	8-17	KIRKVILLE RD	WB	PROVIDE AND INSTALL NEW ROUTE SIGNS ON A NEW GROUND MOUNTED SIGN STRUCTURE, REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	8-18	KIRKVILLE RD	WB	PROVIDE AND INSTALL NEW SIGN PANELS ON A NEW GROUND MOUNTED SIGN STRUCTURE, REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	8-19	KIRKVILLE RD	EB	PROVIDE AND INSTALL NEW SIGNS PANELS ON A NEW GROUND MOUNTED SIGN STRUCTURE, REMOVE AND DISPOSE OF EXISTING SIGNS AND SIGN STRUCTURE.
	8-20	I 81	SB	EXISTING SIGNS AND SIGN STRUCTURE ARE TO BE REMOVED.

PROJECT MANAGER H. UNGAR
CHECK
DRAFTING
CHECK
DESIGN
JOB MANAGER
DESIGN SUPERVISOR

FILE NAME = DGN$SPEC0123456789012345678901234567890123456789012345678901234
DATE/TIME = DGN$SYSTIME0123456
USER = DGN$USERNAME

AFFIX SEAL: ON:	ALTERED BY: ON:

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

I-81 VIADUCT PROJECT

COUNTY: ONONDAGA COUNTY, NY REGION: 3

PIN 3501.91

BRIDGES

CULVERTS

ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED

PHASE 1, CONTRACT 2
INDICATIVE PLANS
SIGNING TABLE 1

CONTRACT NUMBER

DRAWING NO. SG-10
SHEET NO.

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

ITEM 643.99010004 - PRECAST CONCRETE NOISE BARRIER SYSTEM

DESCRIPTION

This work shall consist of designing, furnishing, and erecting a precast concrete noise barrier wall at the locations and to the elevations shown in the contract documents and as directed by the Engineer.

A precast concrete noise barrier system includes, but is not limited to, the following elements:

- Excavation and backfill
- Foundation – typically drilled shafts
- Posts - reinforced precast concrete or structural steel
- Panels - reinforced precast concrete with or without architectural treatment (e.g. formliner patterns), color and/or exposed aggregate
- Anti-Graffiti Coating
- Access door(s) with hinges, lock(s) and handles
- Hot-Dip Galvanized steel hardware and fasteners (e.g., anchor bolts, nuts, washers)
- Miscellaneous materials (e.g., backer rod, caulking)

MATERIALS

The following sections of the standard specifications shall apply:

Portland Cement Concrete– General	501-2
Structural Concrete	555-2
Reinforcing Steel for Concrete Structures	556-2
Precast Concrete – General	704-03
Caulking Compound for Structures	705-06
Preformed, Closed-Cell Foam Material	705-08
Structural Steel	715-01
Galvanized Coatings and Repair Methods	719-01
Anchor Bolts	723-60
Rubber Impregnated Woven Cotton-Polyester Fabric	728-01
Rubber Impregnated Random Fiber Pad	728-02

and the following ASTM reference shall apply:

Standard Specification for Carbon and Alloy Steel Nuts for Bolts for High Pressure or High Temperature Service or Both	A194
Standard Specifications for Structural Bolts, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength	A325
Standard Specification for Carbon and Alloy Steel Nuts	A563
Standard Specification for Concrete Aggregates	C33
Standard Specification for Backer Material for Use with Cold- and Hot-Applied Joint Sealants in Portland Cement Concrete and Asphalt Joints	D5249
Standard Practice for Determination of the Effectiveness of Anti-Graffiti Coating for Use on Concrete, Masonry and Natural Stone Surfaces by Pressure Washing	D7089

ITEM 643.99010004 - PRECAST CONCRETE NOISE BARRIER SYSTEM

Standard Specification for Hardened Steel Washers	F436
Standard Test Method for Laborartory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements	E90
Classification for Rating Sound Insulation	E413

and the following standards shall apply:

NYSDOT LRFD Bridge Design Specification	NYSDOT LRFD
American National Standard for Butts and Hinges	ANSI A156.1
Specifications for Standard Steel Doors and Frames	ANSI A250.8

``

with the following modifications and additions:

A. Precast Concrete: The concrete for precast panels, posts and caps shall have a minimum compressive strength of 5000 psi at 28 days.

B. Cast In Place Concrete: The concrete for the drilled shafts shall meet the requirements of §501-2 and be Class A, ***UNLESS*** water is encountered when excavating for the drilled shafts and the drilled shafts cannot be dewatered. Then the drilled shafts shall be concreted with Class G Tremie Concrete in accordance with §555-3.05 – Depositing Structural Concrete under Water. The bottom of the shaft excavation shall be cleaned of loose material immediately prior to concreting.

C. Reinforcing Steel: Reinforcing steel used in precast concrete panels, caps and posts shall be epoxy coated.

D. Coarse Aggregate: The coarse aggregate, used in precast components with an exposed aggregate finish, shall be screened gravel with a No. 1 size designation. A coarse aggregate gradation meeting the requirements of ASTM C 33, size No. 67 may be used as an alternate to size No. 1. The screened gravel shall be the color indicated in the contract documents. Samples, (1-gallon each) shall be submitted for approval prior to the start of production.

E. Misc. Materials:

Post base plate	§715-01
Caulking compound	§705-06
Backer rod	polyethylene conforming to ASTM D5249 Type I
Neoprene pads	§728-01 or §728-02
Anchor bolts	§723-60; galvanization §719-01, Type II
Bolts	ASTM A325, Type1; galvanization §719-01, Type II
Nuts	ASTM A563, Grade DH or ASTM A194,

	Grade 2H and be galvanized in accordance with §719-01, Type II
Washers	ASTM F436 and be galvanization§719-01, Type II
Miscellaneous steel connection hardware	galvanization §719-01, Type II
Closed cell foam gasket	§705-08

F. Anti- Graffiti Coating: Exposed concrete surfaces shall receive an anti-graffiti coating. The anti-graffiti coating shall be

- one component,
- clear-drying,
- non-sacrificial (permanent),
- tested according to ASTM D7089 and capable of achieving a rating of "Cleanability Level 1" after cleaning,
- applied at the precast manufacturer, no anti-graffiti coating shall be field applied, and
- applied according to manufacturer's instructions.

SI-Coat 531
as manufactured by
CSL Silicones Inc
144 Woodlawn Road West
Guelph, ON N1H 1B5
Canada
1.800.265.2753
www.cslsilicones.com

Blok-Guard & Graffiti Control II
as manufactured by
PROSOCO
3741 Greenway Circle
Lawrence, KS 66046
1.800.255.4255
1.800.255.4255
www.prosoco.com

Permashield Non-Sacrificial #5300/5400
as manufactured by
Monopole, Inc
4661 Alger Street
Los Angeles, CA 90039
1.818.500.8585
www.monopoleinc.com
Or equal as approved by the Engineer.

Refer to the contract documents for foundation diameter and depth for each post for the noise barrier system.

FABRICATION:
The fabrication, curing, and repair requirements for precast components shall meet the requirements of §704-03. Precast Concrete - General, with the following modifications and additions:

A. **Fabrication:** Panels shall be full height with no horizontal joints.

ITEM 643.99010004 - PRECAST CONCRETE NOISE BARRIER SYSTEM

The concrete posts and caps shall have a smooth finish, unless specified otherwise in the contract documents. Panel finish shall be as shown in the contract documents. If an exposed aggregate finish is specified, the panels shall have completely covered, uniform surface of exposed aggregate. The depth of exposure shall be 30% of the primary size dimension of the coarse aggregate exposed.

If a form liner finish is specified, the form liner style shall be as shown in the contract documents. The number of uses per form liner shall not exceed the manufacturer's recommendations. Architectural treatments shall meet the requirements of §704-03.

B. **Repair:** The procedure for repairing damaged areas in the precast concrete, including exposed aggregate or form liner finish shall follow the requirements listed in §704-03 Repair.

CONSTRUCTION DETAILS

The following sections of the standard specifications shall apply:

Trench, Culvert and Structure Excavation	206-3
Structural Concrete	555-3
Cement Mortar Pads	568-3.02

DESIGN AND SHOP DRAWINGS:

The Contractor shall design the precast concrete noise barrier system and components in accordance with these specifications, the contract documents and in conformance with the NYSDOT LRFD Bridge Design Specification, latest edition. The design shall be submitted as shop drawings to the Materials Bureau in accordance with the requirements for Drawing in §704-03 – *Precast Concrete - General.*

Shop drawings shall be submitted for review and approval before beginning any work related to the precast concrete noise barrier system. No components of the precast concrete noise barrier system shall be fabricated until design calculations and shop drawings have been approved.

The shop drawings shall include:

- noise barrier system design
- design calculations,
- all relevant aspects of the precast concrete installation,
- connections including the posts to the footing and the panels to the posts. The panel to post connection shall be designed to be as inconspicuous as possible.
- sizes of all bolts, nuts, washers, plates, and shapes to be used along with the applicable material specifications.

The shop drawings and design calculations shall be stamped by a professional engineer who is licensed and registered in the State of New York.

INSTALLATION

The drilled shaft foundations shall be constructed to the dimensions and elevations shown in the contract plans. Precast concrete footings shall not be allowed. The cost to construct the

foundation for the noise barrier shall include all necessary costs for excavation.

The Contractor shall lift, place, and secure precast concrete wall units in accordance with manufacturer's instructions and approved shop drawings. Follow erection procedures and sequences of erection as recommended by precast concrete wall manufacturer. When overhead utilities are present above the proposed noise barrier, placement methods must be approved by the Engineer. Consideration shall be given to a method different than placement from above.

Posts shall be true and plumb within ½" of the total height. Top of posts and panel shall be within ½" of the elevations noted in the contract documents. The Contractor shall perform any required grading between the posts to provide a continuous and smooth ground line which will meet the tolerances shown on the drawings for the distance between the bottom of the panel and the ground surface.

BASIS OF ACCEPTANCE:
The sampling and testing, marking, final product inspection, shipping and basis of acceptance requirements for precast components shall meet the requirements of §704-03 Precast Concrete - General.

METHOD OF MEASUREMENT
The work will be measured as the number of square feet of precast concrete noise barrier system furnished and erected.

The Noise Barrier System will be measured as the total number of square feet of the noise barrier measured from the top of noise barrier to the bottom of the wall panels and from center to center of posts as shown on the plans.

Only one side of the proposed wall will be measured for payment. No additional payment will be made for the canted panels or for the portion of post caps (all types) that extend above the top of the wall elevation.

BASIS OF PAYMENT
The unit bid price per square foot of precast concrete noise barrier system furnished and erected shall include the cost of furnishing all labor, materials, and equipment necessary to satisfactorily perform the work. Work includes, excavation, concrete foundation, reinforcement, backfill, hardware (anchor bolts, nuts, washers, etc.), formliner treatment, final grading along the noise wall, anti-graffiti coating, and design.